

Pulse, 96; temperature, 101; respiration, 40. Radiogram of whole abdomen revealed what was apparently a foreign body in stomach and some distended coils of small intestine at caecum (Plate 1). Brown, liquid, very offensive stool at 11 P. M. Enemas during night returned clear except for traces of blood. Another radiogram (Plate 2) in the morning showed that the supposed foreign body had left the stomach and that the pelvis was filled with coils of distended ileum. Laparotomy revealed an invagination of ileum into caecum about four inches in length, the bowel being filled with earth and sand. This was reduced in the usual way. At five P. M. quantities of earth and sand were expelled per rectum. Similar movements continued for the next two days, the patient succumbing on the third day after operation. The supposed foreign body must have been sand.

The outstanding features of this case are:

- (1) The absence of pain and vomiting.
- (2) The history of swallowing a piece of tin apparently corroborated by a radiogram.
- (3) The accumulation of sand and earth at the caecum and lower ileum.
- (4) The radiograms showing coils of ileum though no barium or bismuth had been administered.

A PLEA FOR BETTER CO-OPERATION BETWEEN PHYSICIANS AND DENTISTS.

By C. H. WAKE, D.D.S., Los Angeles.

Those who shoulder the burden of responsibility in the present world struggle are subject to more or less criticism. But after the hysterical stage has subsided and the criticism is based on a desire for truth and justice, then such criticism becomes constructive and not destructive. Just so is the purpose of the criticism which is to follow.

It has been less than a century ago since Dr. Harris conceived the modern idea of including dentistry with the other specialties of medicine and teaching oral pathology with dental mechanics. But being unsuccessful in his efforts to add a chair of dentistry to any of the medical schools of his day, he was forced to establish a separate school. This school was the Baltimore College of Dental Surgery established in 1839,—the first in any country. (An Epitome of the History of Medicine by Roswell Park, A.M., M.D.)

As dentistry at that time was in its infancy, being composed almost wholly of mechanical training, it was considered foreign to the science of healing; but the babe has grown and developed into manhood so that it is hardly recognizable.

It is true that the adult "Profession of Dentistry" still retains some of its infant characteristics, but they have been so changed and improved that the infant, as of old, is almost entirely forgotten.

As good environment develops the individual to higher planes, making him more useful to society, so have the scientific teachers of pathology and bacteriology elevated dentistry, the better to serve mankind.

I speak of pathology and bacteriology to the exclusion of others, because it is special pathology of dental origin,—that is the common ground on which the physician and dentist must meet.

In order to best serve our fellowman in the science of healing, there must be co-operation between physician and dentist, inasmuch as pathological conditions, of dental origin, influence the general system in whole or in part.

I quote in part from an article published in the journal of the A. M. A., Dec. 5, 1914, written by Dr. C. H. Mayo, M. D., Rochester, Minn.:

"MOUTH INFECTION AS A SOURCE OF SYSTEMIC DISEASE.

"It has taken a long time for the general public to appreciate the full role of infection in the production of death, while even in the medical profession, more has come from the study of infections in the prevention of disease than in increasing the means of cure of disease, great as have been the results of treatment.

"Since all animal life depends on some other form of cell life, vegetable or animal, it seems but the part of all life to carry on this process of germinative development and maturity.

"It is only the resistance of healthy cells that prevents the inroads of the myriads of ever-present bacteria and animal parasites which are striving to get a foothold that they may in turn carry on their life work.

"Disease, then, is an inflammatory process from infection and the efforts at repair. It may also be chronic from the failure of cell life through lack of defense, from defective nutrition and advancing age."

"Infections which produce the greatest number of diseases enter the system by way of the alimentary and respiratory tracts."

"The great importance of the well-known diseases of the nasal passages with their sinuses, the lymphoid tissue of the pharynx, including the tonsils, and the diseases of the gums and teeth, which have been given prominence by the dental profession during the last three years, is now more generally appreciated."

"Certainly enough is known concerning infections and their mode of entrance, that the infected and diseased mouth and respiratory tract must be looked on as most serious menaces."

"In chronic and recurring diseases, a search must be made to establish positively the non-participation of each of the several sources of infection.

"The physician engaged in this line of observation requires fully as much training in the rudiments of dentistry as the dentist does in the signs of infectious diseases. While we have leaders in all professions, through the energy of their kinetic glands, the big stick which leads to our advancement is in the hands of the progressive and educated public who are constantly demanding more of their dentists, of the medical profession and of

the state in protecting them against preventable diseases."

In view of the fact that when all organs function properly, nature's resistance to the attack of disease is at its maximum, the same law applies to each and every unit of the human anatomy, therefore it is of paramount importance that the dentist, when operating on the teeth, should be ever mindful that the normal function of the teeth and adjacent tissues be not impaired.

Let us consider some of the operations that come under this head.

The treatment of the root canal and its contents, the dental pulp, is the greatest source of trouble of dental origin except it be pyorrhea, with which a physician is concerned, often resulting in the well-known alveolar abscess. The most common of the several reasons are:

Obscurity of factors with which we have to deal; irregularity of size and shape of root canal, making root canal treatment very uncertain without the use of the x-ray. Until more dentists insist that treatment of root canals by modern methods is essential, though more expensive to the patient, this source of trouble will continue to be grave. While there is some excuse for the dentist falling short of an ideal root canal treatment, due to obscurity of factors with which he has to deal, he must be held accountable for all operations contributing to pyorrhea encouraged by lost function of the gingivae, namely, failure to remove from the teeth, calculus under free gum margin; ill-fitting gold crowns; unfinished fillings beneath gum margin; shape of proximal surface, when restored artificially, which becomes a factor of the contact point and interproximal space,—the protection for the septal tissue which in turn is an important resistant to pyorrhea, when functioning properly.

Making large gold fillings in teeth, overtaxing the periodontal membrane by the force of the mallet necessary to obtain the required specific gravity. The same is true of faulty articulation of artificial substitutes for teeth that are anchored to the natural roots, all of which encourage inflammation of the adjacent soft tissue, and in turn contributes to pyorrhea.

The fact that these faulty dental operations are so prevalent throughout the country is appalling, and one who has the interest of fellowman and the advancement of science at heart must look upon the situation with chagrin, in view of the present advanced state of science. It has been my good fortune to gain a vast clinical experience, having been associated with several dental colleges throughout the country as clinical instructor. The dental college is a clearing house for patients who have had failures in their dental operations, who are in search for superior treatment, and I speak authoritatively when I say that in the East, in the Middle West, in the Rocky Mountain region, and on the Pacific Coast, that focal infection is too often the result of poor dentistry.

Please do not understand me to be unwilling to

give credit where credit is due, but, briefly, permit me to add that there are many on the Pacific Coast who are earnestly striving for the truth in dentistry, and bountifully contributing to the advancement of dental science.

So rapid and positive has been this progress that the crown of glory of the Middle West, where the science of dentistry has reached its highest pinnacle, will undoubtedly soon be transferred to the Sunny Southland. This is not only due to the fact that every specialty of dentistry is well represented in our locality, by such authorities in their various specialties as Drs. Edward H. Angle, Julio Endelman, C. J. R. Engstrom, B. B. McCollum, Nye White Goodman, and others, but we have with us Drs. Frederick W. Frahm and Walter G. Crandall, who have been instrumental in placing Iowa at the head of the list in dental science.

Those who have followed the trend of events during the past decade realize full well that the message has been spread broadcast that we should be more thorough in the simple operation of removing calculus from the teeth, and yet, how often do we find this source of irritation under the gum margin that has been overlooked repeatedly during previous cleaning operations. When the average dentist, and it is the average that we must consider, when drawing a logical conclusion,—when the average dentist overlooks such a simple, though destructive factor as calculus beneath the free gum margin, after being repeatedly cautioned to the contrary, it is logical to presume that he may overlook a focus of infection.

Not only is the dentist called on to treat these special pathological conditions, but he must be ever mindful that his dental operations do not contribute to them. The radiograph has revolutionized dentistry; has revealed our shortcomings; has elevated dentistry to heights previously unknown, from the mechanical world to a prominent place in the "Science of Healing." It has brought us in closer touch with the physician.

I wish to quote in part from an article by Dr. David Bernhardt Freundlich, in the January, 1915, *Laryngoscope*:

"THE TEETH AS A PRIMARY FACTOR IN DISEASES OF THE EAR, NOSE AND THROAT—THE DIAGNOSTIC VALUE OF CO-OPERATION OF THE OTOLOGIST, RHINOLOGIST, LARYNGOLOGIST WITH THE DENTIST.

"That the teeth are frequently a contributing factor in pathological conditions of the ear, nose and throat, has long been evident to the rhinologist, laryngologist, otologist and dentist. The fact that the teeth are very often a *primary* factor in such conditions has been more recently recognized by the men of both professions.

"During the last few years, prominent men abroad and in this country have been studying the relationship existing between the teeth and these organs, and many interesting and instructing papers have appeared in the medical journals as a result of their studies. Lermoyez of France, Tilley of London, and B. Frankel of Berlin have contributed valuable literature on the subject."

Dr. Freundlich further cites instances and cases by Bayer of Brussels, Grinwald, Zuckerkandl, Dmochowski, George L. Richards of Fall River, Mass., and many other prominent scientists.

Dr. Freundlich states:

"Before closing, the writer wishes to call the attention of the physician to an interesting report by Dr. C. B. Nesbit, of Valparaiso, Indiana, appearing in a monthly bulletin of the Indiana Board of Health, in 1912. Dr. Nesbit reports a three years' epidemic of scarlet fever in the city, to terminate which, a school inspection was begun. The teeth of 190 children were examined; 937 cavities were found; 454 in permanent teeth; fifty had scarlet fever during the epidemic; 238 cavities were found, one had twelve cavities, two had ten, two had no cavities. After the examination, it was insisted upon that all cavities be filled before the patient is released from quarantine.

"Dr. Nesbit believes with the writer that cavities are incubators for all kinds of pathogenic bacteria. He says, 'Cavities are known to contain the germs of diphtheria, pneumonia, tuberculosis, influenza, and other diseases, which enter the body through the respiratory tract, and as scarlet fever, measles, whooping cough and mumps are believed to be respiratory infections, it is fair to presume that cavities would be equally efficient incubators for these diseases.'

"As a step further in the line of preventive medicine, would it not seem to be the duty of the laryngologist, rhinologist, otologist and dentist, within whose province these incubators of disease lie, to impress upon the patient the great danger to which he is exposing, not only himself, but the community at large, by allowing these cesspools of poison to remain?

"In conclusion, the author of this paper is appreciative of the interest being taken by the men of this branch of the medical profession in the matter of co-operation, and is looking forward to the time when all will meet on common ground for the discussion of conditions relative to their common field of operation and in a relationship as intimately associated as that existing between their professional provinces."

How best can we co-operate with the physician to attain the highest degree of efficiency in rendering the best services the science of healing has made possible?

Diagnosis being the first and all important factor with which we have to deal, we must be sure that no stones be left unturned in locating the seat of trouble, and factors influencing same. While the X-Ray is indispensable in aiding us in our diagnosis of oral pathological conditions of dental origin, it is very limited in its scope of locating foci of infection. Pyorrhea pockets and pericemental abscesses so situated that their relation to the tooth would not show in the Radiograph, therefore, in addition to the X-Ray, the dental diagnostician must be well versed in anatomy, pathology, bacteriology and clinical experience. An extensive knowledge or anatomical

occlusion and operative dentistry aids one in locating the predisposing causes of pathological conditions. In other words, to be forewarned is to be forearmed.

I have tried to show that dentistry has progressed very rapidly, from a mechanical art to a prominent place in Science of Healing; that special oral pathology is the common ground on which the physician and dentist must meet. The welfare of the patient and the progress of the science of healing depends on the co-operation of the two professions.

In conclusion, in order to attain the highest degree of success, in revealing the hidden mysteries of lesions whose foci of infection can be located about the oral tissues, one must not only use the X-Ray, but must acquire all the knowledge that anatomy, special pathology, and bacteriology place at his command.

In view of the previously mentioned facts, it seems logical to believe that the field is broad enough to justify the specialty of dental diagnosis to the exclusion of a general practise.

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Discussion.

Dr. Bullard: I see many cases of corneal ulcer. The bad tonsils were removed, but the ulcers persisted, twenty of them. The ulcers got well when the teeth were looked after, which really were the foci of infection. I had some fifteen cases of corneal ulcer due to defective teeth. We should co-operate with the dentists.

Dr. Zeiler thinks that focal infection has become an obsession. We should remove focal infection, but tonsils and teeth are often removed without cause. *Streptococcus viridens* is nearly always found at the roots of teeth. There are more than one variety.

Dr. Cline: Sometimes impaired teeth may cause heart trouble. The heart's beat became regular after correcting the faulty condition of teeth.

Dr. Reynolds asked whether the enamel could be damaged by improper scaling. Dr. Wake said yes, but is less likely to be than the cementum which is not so dense, and mentioned the kind of instruments to be used.

Dr. Herbert: A young man became a melancholic maniac, but the dentist could find no teeth at fault. By means of electricity the tooth and abscess were located and removed. The patient was cured.

Dr. Levin: I have diagnosed syphilis by looseness of teeth, excrescences on skull and headaches. The meeting was adjourned.

WAR REFUGEES IN JERUSALEM.

Thousands of Armenian refugees at Port Said and many homeless families in or near Jerusalem are now being cared for by the American Red Cross according to cable advices received by the war council from the Red Cross Commissioner to Palestine, headed by Dr. John H. Finley. The relief work was undertaken at the request of Gen. Allenby, and is being carried on under the direction of the military governor.

The Red Cross has established a general dispensary and hospital with a children's clinic in Jerusalem. Hundreds of persons have already received treatment there. At the request of the government of Jerusalem the organization has taken over two orphan asylums with 400 children. Three hundred Russian refugees are also being cared for in Jerusalem by the Red Cross.